APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/210,775	12/14/98	SHIMADA	T 1163-0214P

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EXAMINER
WONG, A

ART UNIT	PAPER NUMBER
2613	10

DATE MAILED:
07/30/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

	Application No.	Applicant(s)
Office Action Summary	09/210,775	SHIMADA ET AL.
	Examiner	Art Unit
	Allen Wong	2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-14* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-14* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some *   c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2,4,5,7*

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Drawings

The term "quantiser" should be spelled as "quantizer". Appropriate correction is

required in the figures.

Specification

Throughout the specification, the term "quantiser" should be spelled as

"quantizer". Appropriate correction is required in the specification.

Claim Objections

Claims 1-14 are objected to because of the following informalities: the term

"quantiser" has been misspelled and it should be corrected to "quantizer". Appropriate

correction is required.

Claim Rejections – 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by

Odaka (5,317,397).

Regarding claim 1, Odaka discloses a moving picture encoding system for

encoding each picture included in a sequence of moving pictures in units of a unit group

(ie. GOP or Group of Pictures) comprised of a plurality of pictures including said each

picture, said system comprising:

encoding control means for, when said unit group includes a plurality of different types of pictures which are to be encoded with different encoding methods (col.15, table 1; note the picture types and the different encoding modes), setting a target quantizer step size used to encode each of the different types of pictures included in said unit group (col.15, ln.46-52; Odaka discloses the quantization step size used to encode the I frame is greater than the quantization step size used to encode the P frame, and similarly, Odaka discloses the quantization step size used to encode the P frame is greater than the quantization step size used to encode the B frame; thus, a target quantizer step size is set to encode the different type of pictures included in said unit group), and for performing a control operation to generate and furnish a quantizer step size so that a ratio among the target quantizer step sizes set for the different picture types is a predetermined one (note figure 17, element 717 is a coding controller that generates and furnishes the quantization step size; col.15, ln.46-52 discloses the ratio is predetermined; col.23, ln.34-40 discloses the predetermined ratios of the quantization step sizes); and

encoding means for encoding said each picture included in said sequence of moving pictures including said each picture using quantizer step size furnished by said encoding control means (note figure 17, element 104, is the quantizer that uses the quantizer step size furnished by the encoding control means 717, then the data is sent to the VLC, Variable Length Coding unit) and using either said each picture or prediction from a past intra coded image and/or a predictive coded image (note figure 17, element

708 stores the prediction image data from a past intra coded image and/or a predictive coded image).

Regarding claims 2-10, 13 and 14, Odaka discloses, in col. 22, lines 58 to col. 23, ln.5, that the activity or complexity, ie. spatial and temporal differences, is detected before setting the proper quantization step size for that frame type to encode. In other words, the complexity obtained from the frame data is extracted and used to help determine the proper quantization step size so that the frames can be properly encoded. Then, Odaka discloses, in col.25, ln.18 to col.26, ln.28, that the ratios among the quantizer step sizes for the different types of pictures are updated.

With regards to claims 11 and 12, Odaka discloses, in figure 17, the use of a cyclical encoding process, a loop for recursive encoding processing where the buffer 715 is storing the amount of generated codes outputted from the variable length coding unit 712 and then the buffer 715 has an arrow to go to the coding controller (ie. encoding control means or quantization controller) where the quantization step sizes and the amount of generated codes are evaluated for determining the proper quantization step size so as to encode the different types of pictures the proper corresponding encoding methods.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-5978. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone

numbers for the organization where this application or proceeding is assigned are (703)

308-5359 for regular communications and (703) 308-6306 for After Final

communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

4700.

AW
July 26, 2001

CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600